

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently amended) A method for controlling at least one computing element with a universal console (UC), comprising:

receiving input from a user indicative of at least one user preference for ~~the a~~ universal console UC;

storing the at least one user preference;

selecting a computing element to control with the universal console UC;

receiving by the universal console UC a canonical user interface (UI) ~~representation~~ representative of the computing element's user interface, UI wherein the canonical user interface UI representation is pre-defined for the computing element and includes at least one action-command operable to control said computing element;

instantiating a ~~concrete~~ user interface description UI by the universal console UC ~~taking into account~~ as a function of the stored at least one user preference and the canonical user interface;

selecting at least one action-command to be carried out by the computing element;  
and

transmitting to the computing element data associated with said at least one action-command using a remote procedure call mechanism.

2. (Original) A method according to claim 1, wherein said selecting at least one action-command includes requesting information about the state of said at least one computing element.

3. (Original) A method according to claim 1, further comprising interacting with at least one group hierarchy to obtain data in connection with said selected at least one action-command to be carried out by the computing element.

4. (Original) A method according to claim 1, wherein said storing includes storing data indicating at least one disability of the user.

5. (Original) A method according to claim 1, further including carrying out said action-command by said computing element.

6. (Original) A method according to claim 1, further including receiving by the UC notifications from the computing element.

7. (Original) A method according to claim 6, wherein said notifications include at least one of an error message, warning message, status update message and state change.

8. (Original) A method according to claim 1, wherein said canonical UI representation is formatted according to an XML stream.

9. (Original) A method according to claim 1, further including requesting a list of available devices that may be controlled by UC.

10. (Original) A method according to claim 1, wherein communications between said UC and said computing element are made via Hypertext Transfer Protocol (HTTP).

11. (Original) A method according to claim 1, wherein said computing element is one from the group of a computing device and an application.

12. (Previously presented) A method according to claim 1, wherein said remote procedure call mechanism makes calls according to Simple Object Activation Protocol (SOAP).

13. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter for choosing one element  $a$  from a set  $A$ .

14. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter for selecting a subset  $A'$  from a set  $A$ .

15. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter for selecting one from the group of True/False, Off/On, OK/Cancel and Yes/No.

16. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter for selecting an integer  $n$  in the range  $n_1$  through  $n_2$ , with increment  $\delta$ .

17. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter for selecting a real number  $x$  in the range  $x_1$  through  $x_2$ , with increment  $\delta$ .

18. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter type for an arbitrary string  $s$ .

19. (Original) A method according to claim 18, wherein said arbitrary string  $s$  is to be selected from a suggestion set of strings  $S$ .

20. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter type for the modification of a given first string  $s$ , resulting in a second string  $s'$ .

21. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter type for ordering the elements of set  $A$  into  $A'$ .

22. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a parameter type for pairing set  $A$  elements with set  $B$  elements.

23. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a group construct that contains at least one of commands and subgroups.

24. (Original) A method according to claim 1, wherein said canonical UI representation includes a representation associated with a command construct that specifies at least one action to send to the controlled element that will carry out the action-command.

25. (Original) A method according to claim 24, wherein said canonical UI representation includes a description of the parameters associated with the at least one action.

26-41. (Canceled)

42. (Currently amended) A computer system comprising at least one universal console (UC) and at least one computing element, operable to allow a user to control said at least one computing element, said system comprising:

at least one computing element having a pre-defined canonical user interface (UI) ~~description~~ associated therewith, wherein said canonical user interface includes at least one action-command operable to control said computing element;

a universal console ~~(UC)~~ for controlling said at least one computing element and operable to store user preferences input to the computer system by the user;

wherein said at least one computing element communicates its associated canonical user interface UI to said universal console UC;

wherein said universal console instantiates a UC ~~generates a concrete user interface UI~~ ~~description from~~ as a function of said canonical user interface UI and said stored user preferences; and

wherein, thereafter, said universal console UC is operable to control said computing element via said ~~concrete UI~~ user interface description by user-selection of said at least one action-command.

43. (Previously presented) A computer system according to claim 42, wherein said user selection includes requesting information about the state of said at least one computing element.

44. (Previously presented) A computer system according to claim 42, wherein said UC is operable to enable a user to interact with at least one group hierarchy to obtain

data in connection with said selected at least one action-command to be carried out by the computing element.

45. (Original) A computer system according to claim 42, wherein said storage of user preferences includes the storage of data indicating at least one disability of the user.

46. (Original) A computer system according to claim 42, wherein said at least one computing element carries out said at least one action-command.

47. (Original) A computer system according to claim 42, wherein said UC receives notifications from the at least one computing element.

48. (Original) A computer system according to claim 47, wherein said notifications include at least one of an error message, warning message, status update message and state change.

49. (Original) A computer system according to claim 42, wherein said canonical UI description is formatted according to an XML stream.

50. (Previously presented) A computer system according to claim 42, wherein said user-selection includes requesting a list of available devices that may be controlled by UC.

51. (Original) A computer system according to claim 42, wherein communications between said UC and said computing element are made via Hypertext Transfer Protocol (HTTP).

52. (Original) A computer system according to claim 42, wherein said computing element is one from the group of a computing device and an application.

53. (Previously presented) A computer system according to claim 42, wherein said remote procedure call mechanism makes calls according to Simple Object Activation Protocol (SOAP).

54. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter for choosing one element  $a$  from a set  $A$ .

55. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter for selecting a subset  $A'$  from a set  $A$ .

56. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter for selecting one from the group of True/False, Off/On, OK/Cancel and Yes/No.

57. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter for selecting an integer  $n$  in the range  $n_1$  through  $n_2$ , with increment  $\delta$ .

58. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter for selecting a real number  $x$  in the range  $x_1$  through  $x_2$ , with increment  $\delta$ .

59. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter type for an arbitrary string  $s$ .

60. (Original) A computer system according to claim 59, wherein said arbitrary string  $s$  is to be selected from a suggestion set of strings  $S$ .

61. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter type for the modification of a given first string  $s$ , resulting in a second string  $s'$ .

62. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter type for ordering the elements of set  $A$  into  $A'$ .

63. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a parameter type for pairing set  $A$  elements with set  $B$  elements.

64. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a group construct that contains at least one of commands and subgroups.

65. (Original) A computer system according to claim 42, wherein said canonical UI description includes a description associated with a command construct that specifies at least one action to send to the controlled element that will carry out the action-command.

66. (Original) A computer system according to claim 65, wherein said canonical UI description includes a description of the parameters associated with the at least one action.

67. (Currently amended) A computer readable medium comprising computer executable instructions for controlling at least one computing element with a universal console (UC), comprising:

means for receiving input from a user indicative of at least one user preference for ~~the~~ a universal console UC;

means for storing the at least one user preference;

means for selecting a computing element to control with the universal console UC;

means for receiving by the universal console UC a canonical user interface (UI) ~~representation~~ representative of the computing element's user interface, UI wherein the canonical user interface UI ~~representation~~ is pre-defined for the computing element and includes at least one action-command operable to control said computing element;

means for instantiating a ~~concrete~~ user interface description UI by the universal console UC ~~taking into account~~ as a function of the canonical user interface and the stored at least one user preference;

means for selecting at least one action-command to be carried out by the computing element; and

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means for transmitting to the computing element data associated with said at least one action-command.